

CFTMC 21

L'ambition de la N^{elle} Calédonie et de la profession minière de préparer le 21^{ième} siècle



Votre avenir est le nôtre

**Centre de Formation aux Techniques de la
Mine et des Carrières**

CFTMC 21

Preparing for the 21st century : A challenge for New Caledonia and the Mining Industry



Your future is Our future

**Centre de Formation aux Techniques de la
Mine et des Carrières**

PRESENTATION OF THE PORO SCHOOL OF MINING

Pierre de BASCOCHE

1. Creation of CFTMC :

In order to fulfil demand by the mining sector for specific skills and qualifications *the Administration and the mining companies* have pooled their resources to create the **Centre de Formation des Mines et des Carrières – CFTMC** (Training Centre for Mining and Quarry)

➤ *the CFTMC opened its doors in 1990*

(under a statute of Association regulated by the legislation of 1901)

➤ *all the mining companies are members of the Board of Directors*

(the management structure ensures representation by the mining industry)



The Training Centre in Poro

2. Outlines of CFTMC development project : CFTMC 21

HISTORY

CFTMC started its activities **with an on-site training course** on the 12th of March 1990 at Poro

(at one of SLN mines, the "Française" mine whose operations had been stopped in 1983 for economic reasons)

Since its inception, the Centre has provided two different types of training:

➤ **Basic training** usually dedicated to **employment seekers**

*This type of training, known as **pre-employment insertion training**, is certified by a level V diploma issued by a State Authority (Ministry of Education or Ministry of Employment)*

➤ **In service training** directed at existing employees

such as heavy-duty equipment operators or mechanics, in need of refresher training. These courses are organised on demand and tailored to company requirements. A certificate of training is issued to the participants.

TODAY

The scale and rhythm of development of New Caledonia's mineral resources is about to undergo a considerable increase.

Three large-scale projects are on the agenda :

- the **Goro Nickel** (INCO) development project
which is already being implemented
- the **Tiébaghi** (SLN) development project
where engineering studies are in progress
- the **Koniambo** (SMSP-FALCONBRIDGE) development project
where an economic feasibility study is under way

TODAY

In view of this unprecedented increase in mining activity, the Authorities
the French Government
the Government of New Caledonia
and the three Provincial Councils
have agreed to include the CFTMC 21 project - designed by CFTMC
management team and approved by its Board of Directors - in the New
Caledonia development plan

CFTMC 21's project :

Preparing for the 21st century : A challenge for New Caledonia and the mining industry

CFTMC 21's main objective :

Provide the youth of New Caledonia with the knowledge and skills required by the mining industry through vocational training

AN AMBITIOUS PROJECT

The ultimate objective of the mining companies is that CFTMC become the "***Ecole de la Mine***" (School of Mining) for New Caledonia

The idea is to identify, propose and organise ***training courses*** that will enable the youth of this country to acquire the skills necessary to fulfil virtually all the jobs created by both new and existing mining companies. The planning stage examines all training needs, ***from the moving machinery Operator to the Mine Supervisor***

OUTLINES OF THE PROJECT

In order to *ensure the success of this interesting youth-oriented project*, CFTMC, supported by its founding partners, the companies involved in large development projects and the Government of New Caledonia, has developed along the following lines :

- it has a **long-term time-frame** (a *5-year training plan* for the mining industry)
- it meets the training standards of the mining companies (*ISO 9001 certification*)
- it provides the **infrastructure and educational resources** necessary to fulfil the tasks it has been, and will be entrusted with (it is funded under *a joint contract between the French Government and the local authorities*)
- it provides for the **development of additional educational levels** (*level IV and III*, or BAC - school leaving certificate - and BAC+2 years of further studies)

3. Meeting the training needs of the mining companies

The objective of the Mining Industry is to **Recruit** approximately **615 qualified personnel** within **the next five years**.

The positions to be filled are numerous and varied.

*They include all the jobs found in the mining industry; **26 types of skills have been identified***

*To meet these needs, **CFTMC has created** **an innovative training scheme**, with the support of the mining industry, and financial backing from the Government and the Provinces*

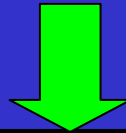
PRINCIPLE APPLIED

A scheme that offers, **to the greatest possible number**, the means to satisfy the demands of the market **without departing from official training standards for certification** : diplomas, state certificates and professional certificates



The project of CFTMC 21 : to meet the needs of mining companies

3 large-scale mining projects



615 potential jobs

(on every qualification level)

Adapted
infrastructures and
educational
resources

Development of
additional
educational
levels

5-year training plan for
the mining industry

GUIDELINES

The scheme designed by CFTMC uses two modes of delivery

- The first is traditional – **the diploma approach** – with the award of a Diploma under the **Ministry of Education** (*Ministère de l'Education Nationale*)
- The other is innovative – **the vocational approach** – leading to vocational qualification through State certificates awarded by the **Ministry of Employment** (*Ministère du Travail*) and Professional certificates awarded by the Mining Industry

These official qualifications range from level V (Certificat d'Aptitude Professionnelle (vocational training certificate) - CAP) to level III (Diplôme d'Etudes Universitaires Scientifiques et Techniques (Scientific and Technical Diploma) – DEUST)

Preparatory courses of the vocational approach are provided in partnership with the Territorial Adult Training Institute (**E**tablissement **T**erritorial de **F**ormation des **A**dultes - **ETFPA**).

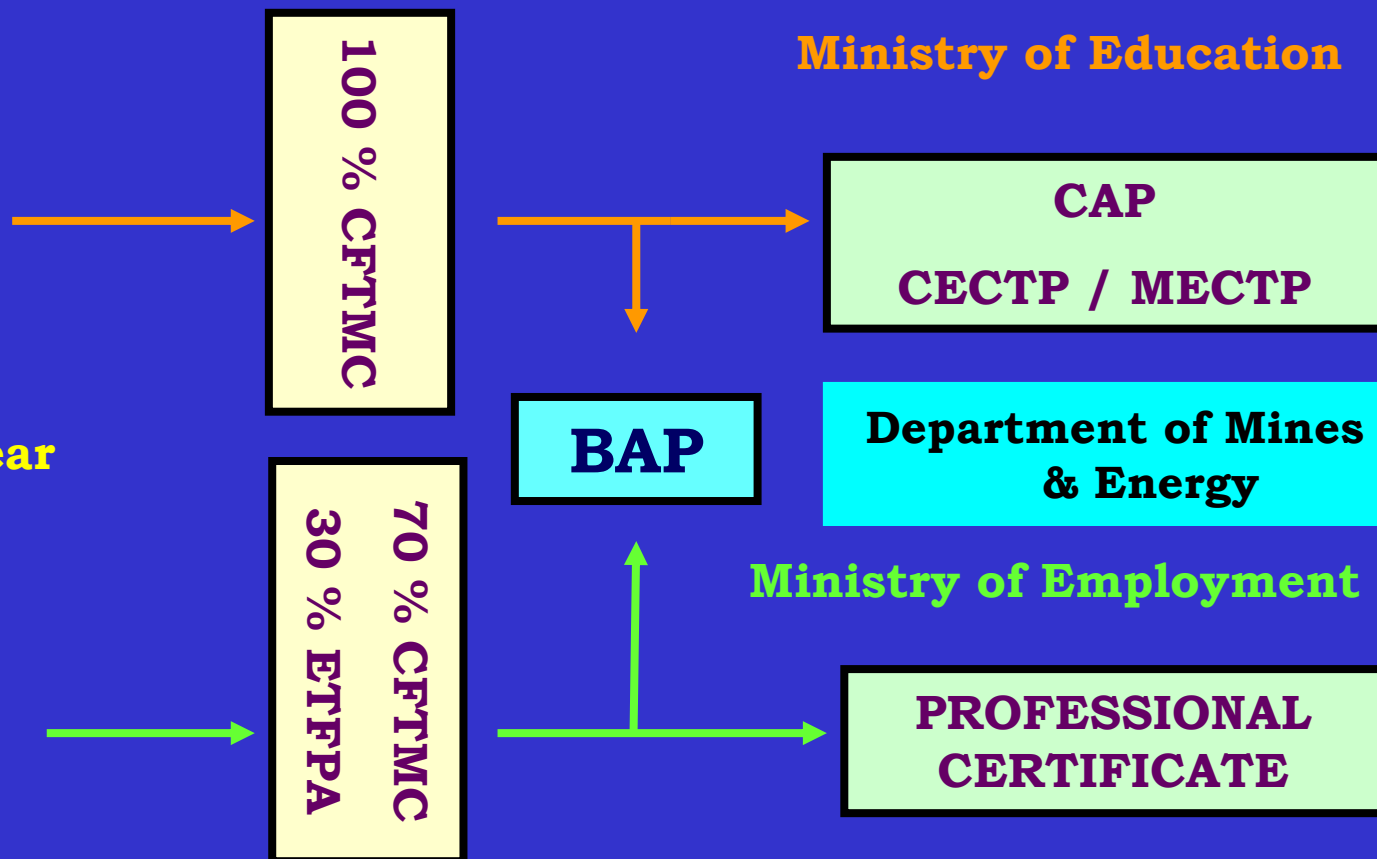


Basic training of CFTMC

DIPLOMA WAY :
40 % of training of
CFTMC

85 people trained / year

VOCATIONAL WAY :
60 % of training of
CFTMC



4. Implementation of the training

PREAMBLE

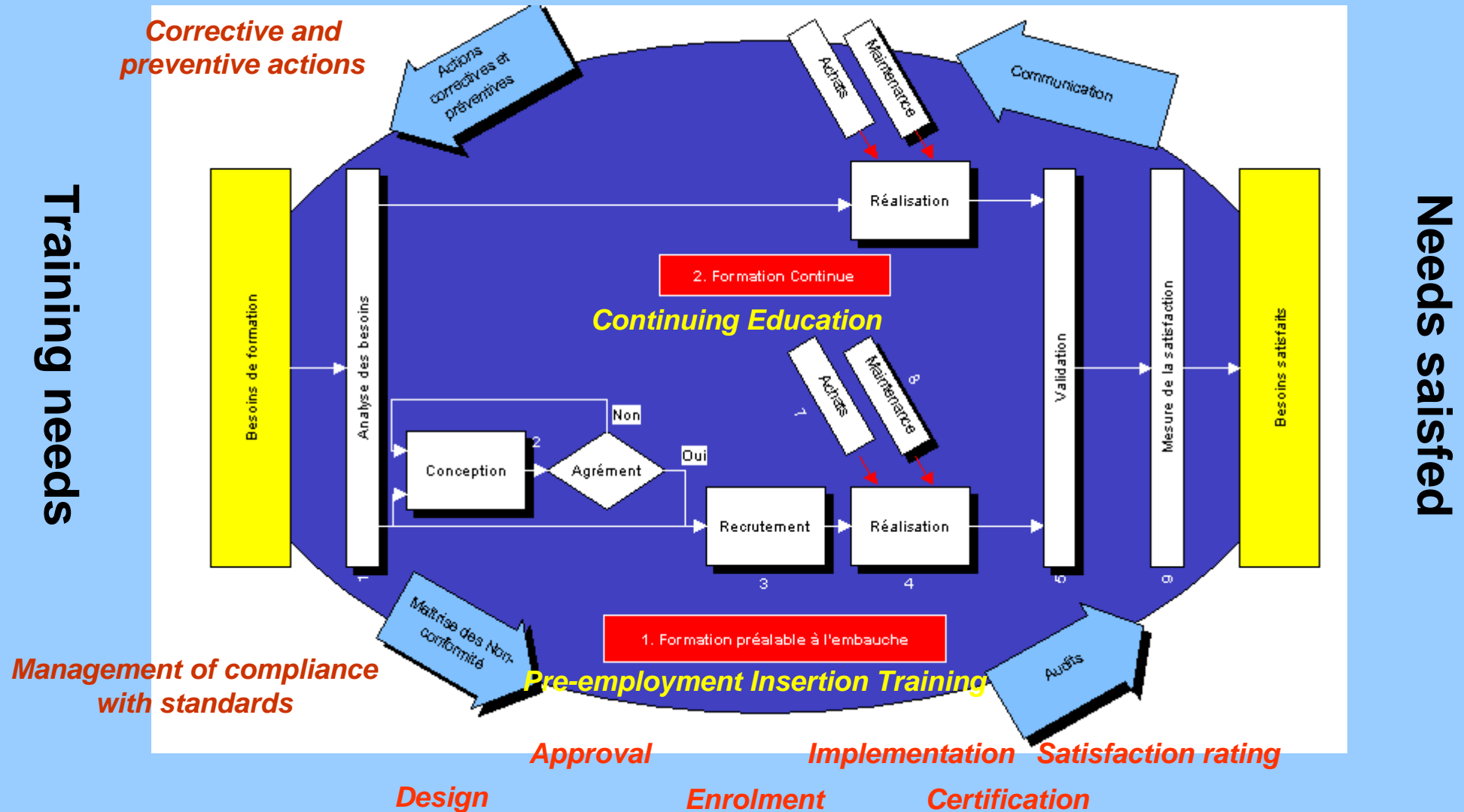
Implementation of training is characterised by CFTMC's capacity

- to **respond quickly to the needs of its clients** *(the mining companies and potential trainees)*
- to **control the different operating processes** *(efficient operation of the training cycle)*
 - *analysis of training requirements*
 - *enrolment of trainees*
 - *design, implementation and granting of diplomas.*

- The mining companies (FALCONBRIDGE, Goro Nickel, SLN, SMSP and the small independent miners) estimate that they will require approximately **615 employees to be qualified** .
- Because of its adequate human and material resources, CFTMC is always able to achieve **the best possible match** between the needs of the employment market on one hand and the requirements of excellent training on the other

QUALITY APPROACH OF CFTMC

General diagram



Legend of the General diagram

Légende du schéma

Schéma Général:

Actions correctives et préventives
Besoins de formation
Analyse des besoins
Conception
Agrément
Maîtrise des non-conformités
Formation continue
Formation préalable à l'embauche
Recrutement
Réalisation
Achats
Maintenance
Communication
Audits
Validation
Mesure de la satisfaction
Besoins satisfaits

General diagram:

Corrective and preventive actions
Training needs
Needs analysis
Design
Approval
Management of compliance with standards
Continuing education
Pre-employment insertion training
Enrolment
Implementation
Purchase
Maintenance
Communication
Audits
Certification
Satisfaction rating
Needs satisfied

COOPERATION AND SHARING OF TRAINING RESOURCES IN NEW CALEDONIA

The 5-year training plan for the mining sector has been agreed by the Government of New Caledonia and *is now being implemented*.

CFTMC sought the co-operation of ETFPA and the University of New Caledonia to provide the most appropriate training resources

- At the conceptual level

CFTMC has adapted the framework of the French Education Authority and the National Association for Adult Vocational Training (Association nationale pour la Formation Professionnelle des Adultes – Afpa) to the mining industry.

- At the implementation level

Courses are provided on an alternating basis between the Territorial Institute for Adult Training (ETFPA) and CFTMC

Others will be jointly provided with the University of New Caledonia.

5. New and innovative courses

INNOVATIVE CHARACTER OF THE TRAINING

The new courses are designed to provide hands-on training at the work-place, in real-life situations where the pace of production is adjusted to suit the participants' training and learning cycle.

- The course is delivered via a number of workplace training modules (production, environment).
- The training scheme is implemented over a long period, alternating theory and practice to enable participants to acquire their first professional experience alongside their qualification.

This new mode of training design and implementation enables professional qualifications to be directly linked to the type of employment available.

This innovative feature is CFTMC's strong point.



Trainees at work

JOB PROSPECTS - QUALIFICATION - TRAINING

JOB PROSPECTS (Topography/Exploration/Mining)

QUALIFICATION (Level of training)

TRAINING (Type, Place)

Surveyor / Geological engineer/
Mining Engineer/Maintenance
Engineer

ENGINEER
Level I

Engineering College
Higher Education
in France

Mining Project manager /
Senior mine geologist
technician/ Senior pre-production
technician/Mine supervisor

**DEUST or STATE CERTIFICATE or
PROFESSIONAL CERTIFICATE**
Level III

New courses
alternance training :
theory at ETFPA or UNC

Survey team supervisor, Topographic
survey manager/
Geological technician/ Pre-production
geological technician/ Survey team
technician / Logging technical operator /
Geology technical operator/ Mine dispatcher /
Geotechnical operator/ Level Boss /
Landfill Boss / Environmental Officer

**BAC +1 or BP or STATE
CERTIFICATE**
Level IV

New courses
alternance training
theory at ETFPA

Survey operator / Sounding operator /
Drill operator/ Driller -Blaster / Heavy-duty
equipment operator / Mechanical shovel operator /
Heavy-duty equipment mechanic

CAP or STATE CERTIFICATE
Level V

Basic training
alternance training :
theory at ETFPA



KEY FIGURES

Number of potential jobs	615
Number of courses agreed upon	10
Number of skills provided for	17
Investment cost for the development of CFTMC 21	255 million XPF (2.2 M US \$)
Cost of five-year training plan	3000 million XPF (25 M US \$)

APPENDIX 1 : Sectors and jobs in the Mining Industry according to qualifications

SECTORS Qualification (<u>Level of training</u>)	Topography <i>Project studies</i> Job reference n°	Exploration <i>7. Prosecting/</i> <i>Geology</i> Job reference n°	Operation Production Job reference n°
Heavy-goods vehicle licence CAP BEP <u>Level V</u>	1. Survey operator	7. Coring operator	15. Drill operator 16. Driller - Blaster 17. Heavy-duty equipment operator 18. Mechanical shovel operator 19. Heavy-duty equipment mechanic
BAC BP <u>Level IV</u>	2. Survey team technician	8. Logging technical operator 9. Geology technical operator	20. Mine dispatcher 21. Geotechnical operator 22. Sift Boss 23. Waste boss 24. Environmental officer

***APPENDIX 1 : Sectors and jobs in the Mining Industry
according to qualifications***

BAC + 1 <u>Level IV</u>	3. Survey team supervisor 4. Topographic Survey manager	10. Geological technician 11. Pre-production Geological technician	
BAC + 2 <u>Level III</u>	5. Mining project manager	12. Senior mine geologist technician 13. Senior pre-production technician	25.Mine Supervisor
BAC + 5 National College of Engineering <u>Level I</u>	6. Surveyor	14. Geological Engineer	26. Mining Engineer

APPENDIX 2 : Mining companies' needs over the next 5 years

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